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EXAMINER

REAGAN, JAMES A

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/016,907
Filing Date: December 14, 2001
Appellant(s): HAMANN ET AL.

MAILED

JUL 28 2006

GROUP 3600

Ronald A. D'Alessandro
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09 May 2006 appealing from the Office action mailed 17 November 2004.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,351,813 B1

MOONEY et al.

02-2002

EP 0 936 530 A1 BENSON 18 AUGUST 1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson (EP 0 936 530 A1) in view of Mooney et al. (US 6,351,813 B1).

Claim 1:

With regard to the limitation of *a virtual smart card control component for handling creating of a virtual smart card and for providing the security and the read/write process for the virtual smart card*, Benson, in at least paragraph 0011 discloses a virtual smart card, and in at least paragraph 0024 discloses an emulator which passes information to and from a virtual smart card, as well as security procedures in at least paragraph 0025.

With regard to the limitation of *a smart card manager component for providing a menu controlled graphical user interface allowing user actions for initiating creation of a VSC and back-up of data objects being stored in said real smart into said corresponding area of said virtual smart card*, Benson, in at least paragraph 0023 discloses a smart card resource manager.

With regard to the limitation of *a communication component for transferring said data objects to be backed-up from said real smart card to said virtual smart card by using functionality of said virtual smart card control component*, Benson, in at least paragraph 0024, discloses an emulator which passes information to and from a virtual smart card.

Benson does not specifically disclose a Graphical User Interface, nor does Benson specifically disclose a back up of a smart card. Mooney, however, in at least Figures 4-7 and associated text does teach the use of a GUI to facilitate the transfer of files. In addition, Mooney, in column 13, lines 10-20 discloses a smart card access module, which may be used to back up smart cards on to a disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the virtual smart card system of Benson with Mooney's techniques of backing up smart cards using a Graphical User Interface because it protects the smart card owner and issuer from unauthorized use of lost or stolen smart cards.

Claim 2:

With regard to the limitation of *a storage media for providing a virtual smart card having data objects to be securely copied into the assigned area of a real smart card*), Benson, in at least paragraph 0025, discloses the virtual smart card storing protected information in its database.

With regard to the limitation of *a virtual smart card control component for handling creating of a virtual smart card and for providing the security and the read/write process for the virtual smart card (VSC)*, Benson, in at least paragraph 0024, discloses an emulator that passes information to and from a virtual smart card.

With regard to the limitation of *a communication component for providing access to a real smart card via access to a smart card driver assigned to the smart card reader*, Benson, in at least paragraph 0024, discloses an emulator, which passes information to and from a virtual smart card.

With regard to the limitation of *a card agent for providing smart card specific commands for writing said data objects to be securely copied from an intermediate buffer o said virtual smart card into said assigned area of said real smart card*, Benson, in at least paragraph 0023 discloses a smart card resource manager.

With regard to the limitation of *a smart card manager component providing a menu controlled graphical user interface allowing to initiate user actions for creation of a VSC and secure copy of data objects being stored in said virtual smart card into said corresponding area of said real smart card*, Benson, in at least paragraph 0023 discloses a smart card resource manager.

Benson does not specifically disclose a Graphical User Interface, nor does Benson specifically disclose a back up of a smart card. Mooney, however, in at least Figures 4-7 and associated text does teach the use of a GUI to facilitate the transfer of files. In addition, Mooney, in column 13, lines 10-20 discloses a smart card access module, which may be used to back up smart cards onto a disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the virtual smart card system of Benson with Mooney's techniques of backing up smart cards using a Graphical User Interface because it protects the smart card owner and issuer from unauthorized use of lost or stolen smart cards.

Claim 3:

With regard to the limitations of:

- *a smart card API component providing an interface to said smart card manger component,*
- *an interface to said virtual control component, and*
- *an interface to a smart card & SC Reader Handler component providing an interface to all available smart card reader driver(s),*

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- *wherein said smart card & SC Reader Handler has an interface to a smart card agency component providing an interface to all available smart card agent(s) providing smart card specific commands,*

The combination of Benson/Mooney as shown above either implicitly or inherently discloses the necessary internal structural hardware and software components that provide the integration and interoperability for the proper utilization of a smart card with a virtual smart card and associated components.

Claim 4:

With regard to the limitation of *said smart card API, said smart card manager component (18) and said virtual smart card control component form an integral component*, the combination of Benson/Mooney as shown above either implicitly or inherently discloses the necessary internal structural hardware and software components that provide the integration and interoperability for the proper utilization of a smart card with a virtual smart card and associated components.

Claim 5:

With regard to the limitations of:

- *opening and displaying data objects of the real smart card to be backed-up via a smart card manager graphical user interface;*
- *selecting data objects to be backed-up via said smart card manager graphical user interface;*
- *automatically creating a virtual smart card (VSC) by a smart card control component via said smart card manager graphical user interface;*
- *wherein said created virtual smart card having a defined logical file structure being identical with a logical file structure of said real smart card in use;*

- *opening a data object area of said created virtual smart card for placing said data objects to be backed-up via said smart card manager graphical user interface;*
- *copying data objects to be selected into said area of said created virtual smart card via said smart card manager graphical user interface storing said virtual smart card on a secure permanent storage media;*

The combination of Benson/Mooney as demonstrated above in the rejections of claims 1-4 discloses the virtual smart card and smart card back up system of the claimed invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the virtual smart card system of Benson with Mooney's techniques of backing up smart cards using a Graphical User Interface because it protects the smart card owner and issuer from unauthorized use of lost or stolen smart cards.

Although the combination of Benson/Mooney does not specifically disclose automatic creation of the virtual smart card, opening data objects to be backed up, and copying data objects to a secure permanent storage area, the system as disclosed by the combination of Benson/Mooney inherently discloses common and widely-used techniques of automated file transfer functions.

Claim 6:

With regard to the limitations of:

- *storing both in the respective area of said defined file structure by said virtual smart card control program; and*
- *electronically storing said defined file structure including said data objects on a storage media virtual smart card;*

Benson, in at least paragraph 0025, discloses the virtual smart card storing protected information in its database.

With regard to the limitation of *automatically creating a defined file structure having defined areas for placing data objects by a virtual smart card control program*, Mooney, in Figure 7 and associated text discloses the file selection screen, essentially disclosing a filing structure. With regard to the limitation of *automatically assigning a password and a unique identifier to said defined file structure created*, Mooney, in at least Figure 6 and associated text discloses a password screen and in Figure 7 discloses unique file and folder identifiers. In addition, Mooney, in column 13, lines 10-20 discloses a smart card access module that may be used to back up smart cards on to a disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the virtual smart card system of Benson with Mooney's techniques of backing up smart cards using a Graphical User Interface because it provides a system for creating a copy of a real smart card to ensure that lost or stolen smart cards can be quickly and easily replaced with current account information.

Claims 7-9:

The combination of Benson/Mooney as demonstrated above in the rejections of claims 1-4 discloses the virtual smart card and smart card back up system of the claimed invention. Benson/Mooney do not specifically disclose:

- *a public area in which public data objects having no access conditions are placed;*
- *a private area in which private data objects being encrypted are placed;*
- *a secret key area in which key data objects being encrypted are placed;*
- *a password area in which a password being encrypted is placed an unique identifier area in which an unique identifier for identifying the VSC is placed;*
- *said defined file structure of said virtual smart card is a dedicated file structure containing elementary files for defining the areas in which said data objects are to be placed;*

- *user actions via said menu controlled graphical user interface with respect to the private areas of said virtual smart card require the input of a password.*

However, Examiner takes **Official Notice** that it is old and well known in the computing storage arts to place restrictions on files and file folders within a file structure based on privacy standards and setting such as shared, password-protected, encrypted, and public. Placing files and file folders in this type of hierarchical security standard provides a means for providing different types of access based on a user's security status.

Claim 10:

With regard to the limitation of *opening, copying, and storing steps are accomplished using a respective functionality provided by the virtual smart card control program*, the combination of Benson/Mooney as demonstrated above in the rejections of claims 1-4 discloses the virtual smart card and smart card back up system of the claimed invention, essentially disclosing integral and everyday computer file manipulation techniques of copying, storing, and opening.

Claim 11:

With regard to the limitation of *said virtual smart card is created on a server system and is provided to a client system via a secure channel*, Benson, beginning in at least paragraph 0034 discloses a client-server network system and a protected communication channel.

Claim 12:

With regard to the limitation of *a computer program product stored on a computer usable medium comprising computer readable program means for causing a computer to perform the method of anyone of the claims 5 to 11 when said program product is executed on said computer*, see the rejections of claims 5-11 above.

(10) Response to Argument

Appellant alleges that the rejection lacks motivation to combine the references. See brief, page 6. The Examiner respectfully disagrees. In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

To this end, the Examiner recognizes that references cannot be arbitrarily altered or modified and that there must be some reason why one skilled in the art would be motivated to make the proposed modifications. Although the motivation or suggestion to make modifications must be articulated, it is respectfully submitted that there is no requirement that the motivation to make modifications must be expressly articulated within the references themselves. References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures, *In re Bozek*, 163 USPQ 545 (CCPA 1969).

The Examiner is concerned that the Applicant apparently ignores the mandate of the numerous court decisions supporting the position given above. The issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re Delisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al* 192 USPQ 278 (CCPA) that:

- (i) obvious does not require absolute predictability;
- (ii) non-preferred embodiments of prior art must also be considered; and
- (iii) the question is not express teaching of references but what they would suggest.

According to *In re Jacoby*, 135 USPQ 317 (CCPA 1962), the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied references. Within *In re Bode*, 193 USPQ 12 (CCPA 1977), every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In *In re Conrad* 169 USPQ 170 (CCPA), obviousness is not based on express suggestion, but what references taken collectively would suggest.

In the instant case, the Examiner respectfully notes that each and every motivation to combine the applied references is accompanied by select portions of the respective references, which specifically support that particular motivation. As such, it is NOT seen that the Examiner's combination of references is unsupported by the applied prior art of record. Rather, it is respectfully submitted that explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner, *Ex pane Levengood* 28 USPQ 2d 1300 (Bd. Pat. App. & Inter., 4/22/93).

Benson, in the abstract, declares, "A Virtual Smart Card emulates a real smart card by providing an identical interface and services." This statement provides the foundation for asserting that the virtual smart card and the physical smart card are identical in function and purpose. For support, Benson fully discloses physical smart cards and their functionality in paragraph 0007. In paragraph 0011, Benson begins a discussion regarding virtual smart cards and their operation. Specifically, in paragraph 0012m Benson states, "Although the Virtual Smart Card has no physical manifestation, a virtual smart card emulates all three of the real smart card states." Mooney discloses a physical smart card. Since physical smart cards and Virtual smart Cards are identical in function, motivation to combine is properly established.

Appellant asserts that, "...nowhere in the cited passages or elsewhere in Benson is it disclosed how the Virtual Smart Card is created." See brief, page 7. However, nowhere in the limitations is a process of system for creating a virtual smart card claimed. Here, it appears as if the Applicant is reading limitations into the claims from the specification. Consequently, the

points argued are not recited in the claims themselves. In this particular case, the Examiner has taken the broadest and most reasonable interpretation of the claim limitations as written, in light of the specification. Although the specification may contain recitations of intended use, alternative points of view and subjective interpretative differences between the prior art of record and the present invention as premeditated, it is the claims themselves that are given patentable weight only inasmuch as they are constructed. Because the claimed invention has been painted with the broad stroke of petitioning for limitations that encompasses more than is asserted in the Applicant's claims, the prior art of record continues to fully disclose the Applicant's inventions as *claimed*. In addition, since Benson clearly discloses a virtual smart card, a virtual smart card emulator, and the bridge technology shown in paragraph 0011, the creation of the virtual smart card is inherently disclosed.

Continuing on page 7 of the brief, the Appellant asserts that the prior art of reference does not show a menu-controlled resource manager for initiation and creation of a VSC, and backing up of smart card data. However, Benson, in paragraph 0023 discloses a smart card resource manager, and in paragraph 0024 discloses the virtual smart card emulator that emulates all of the necessary functions of the physical smart card. The knowledge available to those of ordinary skill in the art teaches that the emulator, resource manager and associated virtual smart card software as disclosed in Benson creates, controls, and manages the operation of the virtual smart card. Mooney, in Figures 4-7 and in column 13, lines 10-20 clearly shows the graphical user interface (GUI) i.e. menu-driven interface, and the method of backing up data from smart card onto a computer. Here, it appears as if the Appellant is attacking the references in a piecewise fashion, instead of in combination, as intended by the Examiner and as shown above in the rejections under 35 USC § 103(a). On page 9 of the brief, Appellant argues that Benson does not explicitly disclose back up of a real smart card. Even though the virtual smart card is indeed a back up of a real smart card, Benson does not disclose this *per se*. Mooney, however, as shown, explicitly discloses a back up procedure. Appellant responds by claiming that Mooney does not disclose virtual smart cards. However, since the virtual smart card and the physical

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smart have been shown to be equivalent, this assertion is without merit. The process of writing data objects from the real smart card to the virtual smart card is therefore disclosed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

JAMES A. REAGAN

Primary Examiner

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JAMES A. REAGAN
PRIMARY EXAMINER



Conferees:

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